

## **Willow Creek – What's New!**

Willow Creek is an approximate 5-mile watercourse that originates in rural Sheboygan Falls, flows east through the Town of Sheboygan Falls, the Village of Kohler and discharges to the Sheboygan River on the west side of the City of Sheboygan. The Willow Creek watershed is largely agricultural on the west portion and transitions to urban on the east portion. The creek is supported primarily by surface water runoff near the headwaters and receives increased groundwater discharge east of the village of Kohler. The channel has experienced significant degradation from channelization, rerouting, non-point runoff, and urbanization.

As part of the Wisconsin Department of Natural Resources (WDNR) baseline water quality monitoring program, Willow Creek was monitored in 2002, 2003, and 2004. Data from this study included fish communities, macroinvertebrate communities, stream habitat characteristics, water quality and flow measurements. Sampling results indicate brook trout, juvenile coho salmon, and other pollution intolerant species were observed in the reach from I-43 to the Sheboygan River.

Development pressures in the Willow Creek watershed is expected to continue. Numerous residential and commercial developments have been constructed recently and growth within the watershed will continue, especially along the STH 23 corridor. Uncontrolled urbanization of the watershed will impact the physical, chemical, and biological integrity of the stream.



## **Recent Accomplishments**

During 2005/2006, the Sheboygan River Basin Partnership (SRBP) initiated a campaign to inform the public and local municipalities of the Willow Creek resource. The goal is to increase public awareness, promote low-impact development concepts, promote effective stormwater management practices, reduce agricultural runoff, and protect and enhance the stream habitat. The SRBP has sent two mailings, held 2 public information sessions, attended local municipal government meetings, and received local media coverage from the Sheboygan Press.



Through grants from the U. S. Fish and Wildlife Service (USFWS) and the WDNR, the SRBP has retained aquatic biologists and watershed specialists to obtain additional fish and water quality data to better characterize Willow Creek. John Waiter, Northern Environmental, and Stewart Cogswell, USFWS, completed fish shocking and macroinvertebrate sampling in 2006. The sampling captured 8 mature Brook Trout between 9 and 13 inches, 30 juvenile Coho Salmon and one juvenile Brown Trout.



Nancy Turyk, Watershed Specialist for the University of Wisconsin – Stevens Point, is putting the final touches on the Willow Creek watershed study. The study included water sampling to check water temperature, nutrients, and total suspended solids. Students from the Sheboygan South Environmental Club also participated in the water

sampling. The study concluded the water quality in the east portion of the watershed receives significant groundwater discharge and is capable of supporting cold water fish species.

In September 2007, John Lyons, PhD, Great Lakes Aquatic Research Biologist and John Masterson, WDNR-Plymouth, completed fish shocking of Willow Creek. The shocking found juvenile steelhead, coho, and Chinook salmon that are naturally reproducing in Willow Creek. after our field visit to Willow Creek on September 12, 2007. This survey confirmed that Willow Creek is the only Wisconsin tributary to Lake Michigan with reproducing Coho, Chinook and Steelhead. Dr. Lyons concluded that the Willow Creek salmonid population is worth learning more about and preserving.



For the second year, the SRBP teamed with Oostburg High School students for the annual fall cleanup of Willow Creek near Esslingen Park. Willow Creek is a unique coldwater fishery that is used for spawning by salmon and trout from Lake Michigan. Garbage and debris removed from the creek will allow fish to migrate upstream easily. A total of 30 tires, four 55-gallon drums, bedsprings, a refrigerator, glass bottles, wood, and 20 bags of garbage were removed from the stream and disposed by the City of Sheboygan DPW.

## Upcoming Events

The information and scientific data gathered in 2006 and 2007 is critical to preserving Willow Creek. The UWSP will be conducting a presentation in January 2008 in conjunction with Maywood. The presentation will be open to the public and local schools.

The WDNR is pursuing classifying Willow Creek as a Trout Stream. The information collected by the SRBP is critical to justifying the classification of this stream. Wisconsin regulations provide restrictions to land uses near classified streams which will help protect aquatic habitat and water quality.

The SRBP is working closely with local environmental groups, municipalities, landowners, and land trusts to develop a plan to protect lands within the Willow Creek watershed. In 2008, SRBP will be developing a watershed protection plan that considers protecting the highest priority lands within the watershed.

